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09/17/2003

Kun Tan

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LEE & HAYES PLLC

421 W RIVERSIDE AVENUE SUITE 500

SPOKANE, WA 99201

EXAMINER

BATES, KEVIN T

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/664,354	TAN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	KEVIN BATES	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 9-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Response to Amendment***

This Office Action is in response to a communication received on February 25, 2008.

Claims 1-8 are pending in this application.

Claims 9-18 have been withdrawn as being directed towards a non-elected group.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 1 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 1 recites a middleware communication space, ¶ 35 of the instant specification describes the device, while being the only embodiment described, is only one of many embodiments imagined by the specification. That in conjunction with ¶ 79 which discloses that the embodiments may either be software or hardware allows the middleware to be completely embodied in software. The software embodiment in addition to the metadata storage component only being configured to store metadata allows the invention to be non-stored, not-executed software thus making the claim software per se and non-statutory.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Lamming (6922725).**

**Regarding claim 1**, Lamming teaches a middleware communication space enabling coordination of one or more distributed applications in a partially connected ad hoc wireless network, the middleware comprising:

a proxy component configured to receive data from the one or more distributed applications (Figure 3, where the middle ware is on the mobile computing device and the distributed applications are the output device and the document server);

a protocol agent coupled to the proxy component, the protocol agent configured to monitor metadata (Column 14, lines 41 – 58, where the messages include document tokens and document metadata) for transport and to govern transport of messages (Column 8, lines 26 – 30; Column 12, lines 28 – 61, where the mobile device is operating in sending messages between the output device and the document server) in the partially connected ad hoc network (Column 5, lines 53 – 67); and

a metadata storage component coupled to the proxy component and the protocol agent, the metadata storage component configured to store metadata capable of being

transported as a message according to the one or more distributed applications (Column 14, lines 41 – 58), the middleware communication space providing a bridge between two or more partially-connected networks, the bridge enabling temporary storage of the messages to enable transparent messaging between two or more devices (Figure 3).

**Regarding claim 5**, Lamming teaches the middleware communication space of claim 1 wherein the middleware communication space provides one or more of message caching, transferring and routing (Figure 3, shows transferring and routing).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 2-4 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lamming in view of Sapuram (7200674).**

**Regarding claim 2**, Lamming teaches the middleware communication space of claim 1.

Lamming does not explicitly indicate wherein the message is in one or more of a SOAP format and a WS series protocol format.

Sapuram teaches a system of distributed applications and providing a gateway or bridge between those applications (Column 5, lines 32 – 43) that includes wherein the

message is in one or more of a SOAP format and a WS series protocol format (Column 1, lines 44 – 49; Column 4, lines 55 – 58).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Sapuram's teaching of various application to application protocol formats in Lamming in order to support a wide variety of applications that might need to be communicated through the bridge.

**Regarding claim 3**, Lamming teaches the middleware communication space of claim 1.

Lamming does not explicitly indicate wherein the middleware storage component holds a plurality of the messages in eXtended Markup Language (XML), the messages in a hierarchical structure.

Sapuram teaches a system of distributed applications and providing a gateway or bridge between those applications (Column 5, lines 32 – 43) that includes wherein the middleware storage component holds a plurality of the messages in eXtended Markup Language (XML), the messages in a hierarchical structure (Column 5, lines 22 – 27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Sapuram's teaching of various application to application protocol formats in Lamming in order to support a wide variety of applications that might need to be communicated through the bridge.

**Regarding claim 4**, Lamming teaches the middleware communication space of claim 1.

Lamming does not explicitly indicate wherein the metadata includes: web service routing protocol (WS-Routing) data that defines routing data; and data appropriate for an extended protocol to provide processing information for the protocol agent.

Sapuram teaches a system of distributed applications and providing a gateway or bridge between those applications (Column 5, lines 32 – 43) that indicate wherein the metadata includes: web service routing protocol (WS-Routing) data that defines routing data (Column 1, lines 44 – 49); and data appropriate for an extended protocol to provide processing information for the protocol agent. (Column 5, lines 22 – 27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Sapuram's teaching of various application to application protocol formats in Lamming in order to support a wide variety of applications that might need to be communicated through the bridge.

**Regarding claims 6-8**, Lamming teaches the middleware communication space of claim 1.

Lamming does not explicitly indicate wherein the messages are organized into a plurality of data fields including at least 1, 3, 6 or more of:

an expiration time data field identifying the expiration of the message in absolute time such that data are invalid after the identified time;

a hop limitation data field providing an upper bound of hops that a message can be transferred, the upper bound decreasing by one after a successful transmission;

a timestamp data field providing a absolute time marking creation time of the message;

a namespace data field identifying a subspace in which the message is placed;  
an administration domain data field identifying a domain to which the message is restricted, the administration domain data field defining a physical bound of devices which share a same administration privilege;  
a relatedness data field specifying a topic to which the message is related, the relatedness providing a relationship attribute to define an action when two or more messages are related to the topic;  
a priority data field defining a priority of the message; and  
a property data field providing an extensible component for the distributed application to define application-specific properties with the message.

Examiner takes Official Notice (see MPEP § 2144.03) that messages in a network can and usually contain information in the header fields including:

1. an expiration time data field identifying the expiration of the message in absolute time such that data are invalid after the identified time;
2. a hop limitation data field providing an upper bound of hops that a message can be transferred, the upper bound decreasing by one after a successful transmission;
3. a timestamp data field providing a absolute time marking creation time of the message; and
4. a priority data field defining a priority of the message.

The Applicant is entitled to traverse any/all official notice taken in this action according to MPEP § 2144.03, namely, "if applicant traverses such an assertion, the examiner should cite a reference in support of his or her position". However, MPEP §



2144.03 further states "See also *In re Boon*, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice)." Specifically, *In re Boon*, 169 USPQ 231, 234 states "as we held in *Ahlert*, an applicant must be given the opportunity to challenge either the correctness of the fact asserted or the notoriety or repute of the reference cited in support of the assertion. We did not mean to imply by this statement that a bald challenge, with nothing more, would be all that was needed". Further note that 37 CFR § 1.671(c)(3) states "Judicial notice means official notice". Thus, a traversal by the Applicant that is merely "a bald challenge, with nothing more" will be given very little weight.

Sapuram teaches a system of distributed applications and providing a gateway or bridge between those applications (Column 5, lines 32 – 43) that indicate

6. a namespace data field identifying a subspace in which the message is placed (Column 8, lines 27 – 29);

7. a property data field providing an extensible component for the distributed application to define application-specific properties with the message (Column 8, lines 31 – 35).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Sapuram's teaching of various application to application protocol formats in *Lamming* in order to support a wide variety of applications that might need to be communicated through the bridge

### ***Response to Arguments***

Applicant's arguments filed February 25, 2008 have been fully considered but they are not persuasive. The applicant argues that Lamming does not explicitly indicate a partially connected ad hoc network. The examiner disagrees, figure 1 shows that Network A is connected to device 110 which is then connected to network B, which shows at least there is a partial connection between network A and B. Also Column 5, line 61 – Column 6, line 2 shows that the ad-hoc network can be a temporary connection and only when they are in proximity. This shows that based on the idea that the ad hoc network is partially connected.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN BATES whose telephone number is (571)272-3980. The examiner can normally be reached on 9 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on (571) 272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2153

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin Bates/  
Examiner, Art Unit 2153